

## JULY AVAILABLE COPY

## PATENT ABSTRACTS OF JAPAN

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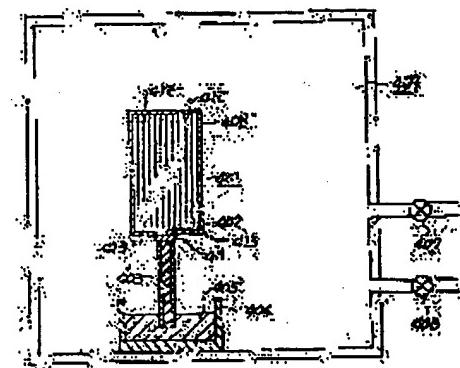
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## (54) OPTICAL MODULATING ELEMENT AND ITS PRODUCTION

## (57) Abstract:

PURPOSE: To obtain an optical modulating element having high reliability, durability and stability by forming atmospheric pressure difference on the inside and outside of a blank cell obtained by arranging plural band-like spacers having connection ports between a pair of parallel substrates and injecting a liquid substance capable of modulating optically.

CONSTITUTION: The plural band-like spacers 412 having connection holes are arranged between a pair of parallel substrates and the whole surface except a part to be an injection port 402 between the substrates is sealed to form the blank cell 401. The blank cell 401 is incorporated into a vacuum device 409 in which a boat filled with the optically modulatable liquid substance 405 and a capillary 403 are arranged, a leak valve 406 is closed and a vacuum valve 407 is opened to make the inside of the device 409 vacuum less than 10Torr or less. Subsequently, the injection port 402 of the cell 401 is brought into contact with the capillary 403, the injection port 402 is covered with the liquid substance 411 and then the capillary 403 is separated from the injection port 402. Then the valve 406 is opened to return the inside of the device 409 to atmospheric pressure and the liquid substance 411 is injected into the cell 401 through the connection holes 413 between the spacers in accordance with the atmospheric pressure difference between the atmospheric pressure of the cell 401 and the atmosphere.



## LEGAL STATUS

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